DIGIMERGE | Right for Business

DPZ36WO23 / DPZ36WO30
PTZ Camera

Instruction Manual
English Version 1.0

www.digimerge.com

CAUTION

**These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than
that contained in the operating instructions unless you are qualified to do so.**

In USA and Canada, Use Class 2 Power Supply Only

Contents

Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions;

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Caution

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION
1. **A regulated AC24V 2.5A power supply is recommended for use with this camera.** Use of an unregulated power supply can cause damage to the camera and voids the warranty.
2. It is recommended that the camera is used with a monitor that has a CCTV quality 75 video impedance level. If your monitor is switched to high impedance, please adjust accordingly.
3. Do not attempt to disassemble the camera to gain access to the internal components. Refer servicing to your dealer.
4. Never face the camera towards the sun or any bright or reflective light, which may cause smear on the picture and possibly damage the CCD.
5. Do not remove the serial sticker for the warranty service.

Caution

**Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)**

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicate that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.
This product should not be mixed with other commercial wastes purchased this product, or their local government office, for details of where and how they can take item for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract.
Household users should contact either the retailer where they for disposal.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER.SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
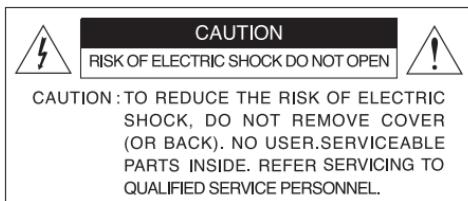
This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance

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IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

1. Overview

1.1 Features

DPZ36WO23:
- 600 TVL Resolution
- 230X Zoom (23X Optical, 10X Digital)

DPZ36WO30:
- 700 TVL Resolution
- 300X Zoom (30X Optical, 10X Digital)

Common Features:
- Autofocus, High Resolution Integrated Color Camera
- WDR (Wide Dynamic Range)
- Day & Night (Auto/BW/Color)
- Pan 360°Endless Rotation
- Tilt 180°Vector scan available
- 210 Preset Positions (except Short-cut command)
- 8 Auto Scan
- 8 Pattern
- 8 Tours consist of Presets, Patterns and Scans
- 4 Alarm Input (Off/NC/NO) and 1 Alarm Output (Off/NC/NO)
- User programmable setting
  (Preset, Auto Scan, Pattern, Tour, Home Function, Alarm Action, etc)
- Programmable PTZ Speed: Proportional to Zoom ratio, changeable preset speed
- Multi-language OSD Support
- Private Mask Zone Support
- Standard protocol including Pelco-D/P
- Up to 255 Camera ID's
- RS-485 Receiver
- AC 24V Only
- IP Rating: IP66 (Weatherproof)

1. Overview

1.2 System Configuration
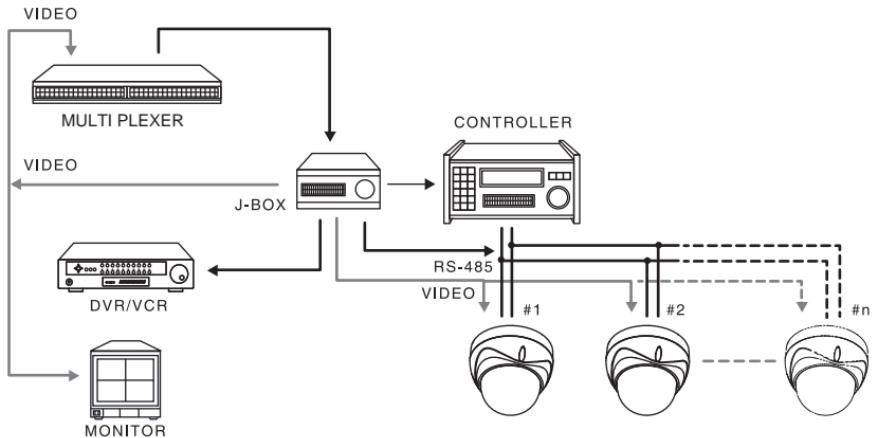
1.3 Termination Settings
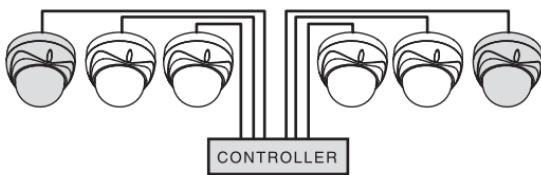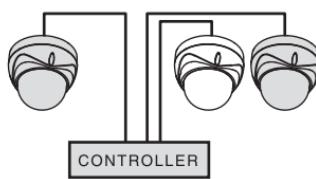
2. Installation and Connection

2.1 Package Contents

Camera
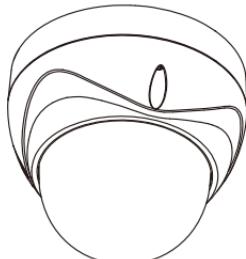
Mounting Template	Manual
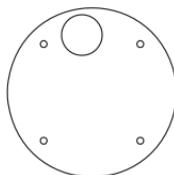
Screws / Plastic anchors / Allen Key / O-Ring

Plastic anchors
(6x30 - 4ea)

Screws
(#8(Ø4.2)x32 - 4ea)

O-Ring(8ea)

Screws(M4x12-4ea)

Allen-Key
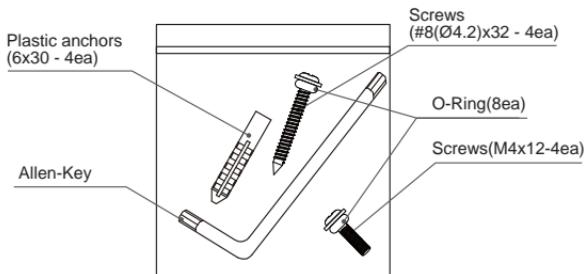
2. Installation and Connection

2.2 Surface Mounting

1 - Select a location that can support the weight of the camera.
2 - Use the mounting template to create holes for the mounting screws and cable. Insert the anchors(4).
3 - Run the cables through the cable hole and connect the cables as shown in {2.4.5 Connection Diagram} on page 11.

> ⚠ **Caution:** Do not connect power to the camera before completing the entire installation.

4 - Remove the dome cover. Remove the internal foam packaging. To prevent scratches, do not remove the film on the outside of the dome cover before completing the installation.
5 - Firmly attach the Camera Base to the surface using the mounting screws(4) with o-rings attached.

> ⚠ **Caution:** Make sure the o-rings are attached to the mounting screws and torx screws before mounting to provide a weatherproof seal.

6 - If necessary, use the internal Dip Switches to set the camera ID and protocol according to {2.5 Setting Dome Camera} on page 12.
7 - Attach the Dome Cover to the Camera Base using the torx screws(3) with o-rings attached.

Mounting Template

Anchors(4)

Camera Base

O-Rings(4)

Mounting Screws(4)

Dome Cover

O-Rings(3)

Torx Screws(3)
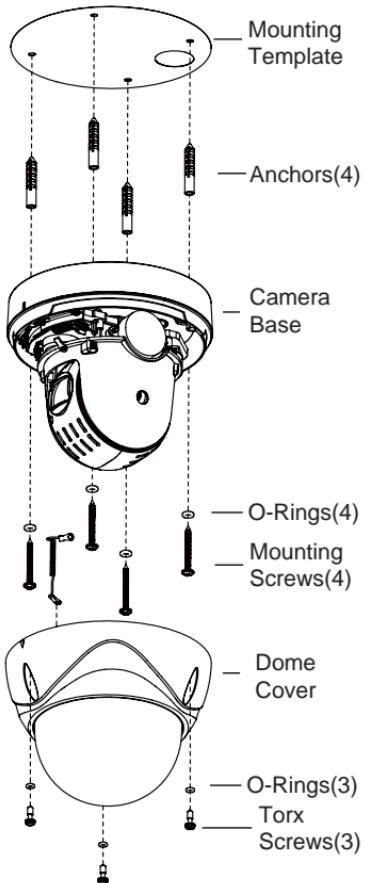
2.3 Mounting Accessories

MNTZ36C Ceiling Mount

MNTZ36PP Parapet Mount (Special Order)

MNTZ36W Wall Mount

MNTZ36R Corner Adapter (Requires MNTZ36W)

MNTZ36P Pole Adapter (Requires MNTZ36W)

2. Installation and Connection

2.4 Connection Interface and Wiring Cables

> **Caution**
> **Remove the protection sheet (PE form) before connecting power to the camera.**
> Do not connect the power cable until all other connections have been completed.

2.4.1 Connecting the RS-485 lines

The dome camera can be controlled remotely by an external device or control system such as a controller using RS-485 half duplexer (RS-485 Connection). A repeater is recommended to extend over 1.2km.

2.4.2 Connecting Video Jack

Connect the video Jack (BNC connector) to the monitor or video input of the DVR.

2.4.3 Connecting Alarms

Alarm In: You can use external devices to trigger the dome camera to react to events.
Mechanical or electrical switches can be wired to the AI and Ground pins.
Alarm Out: The dome camera can activate external devices such as buzzer. Connect the device to NO (or NC) and COM pins.

2.4.4 Connecting the Power

Connect the power jack of a AC24V adapter or power source to the dome camera.

2.4.5 Connection Diagram

TERMINAL BLOCK 8P

NO	SIGNAL	COLOR
1	NC	YELLOW
2	COM	ORANGE
3	NO	GREEN
4	AL3	BLUE
5	GND ARM	BLACK
6	AL2	VIOLET
7	AL1	GRAY
8	AL0	BROWN

TERMINAL BLOCK 2P

NO	SIGNAL	COLOR
1	TRX+	SKY
2	TRX−	WHITE
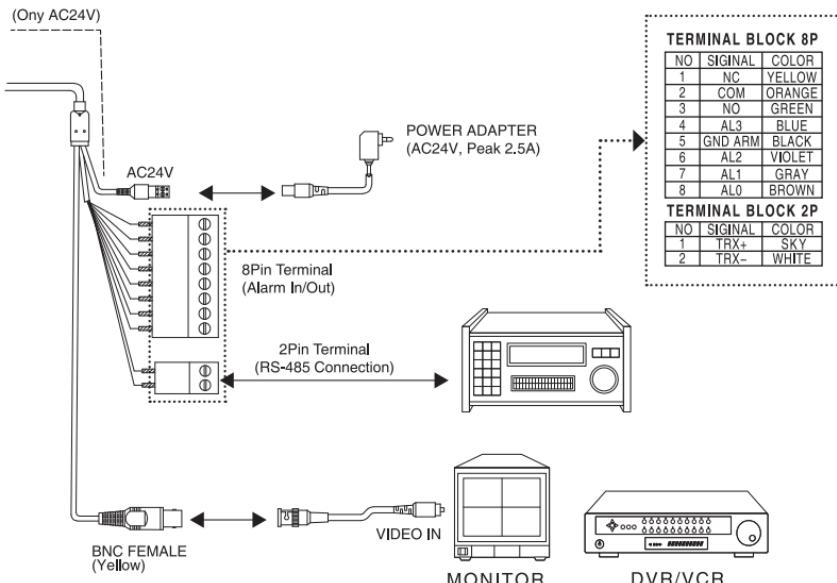
2. Installation and Connection

2.5 Setting Dome Camera

The device can communicate with external switching devices such as multiplexers or DVR's by setting the Rotary switch and Dip switch. Refer to tables below for setting the dome camera ID and protocol selection. Total length of the cable for communication should not exceed 1km.

2.5.1 Setting the address (ID) of dome camera

To prevent wrong operation and malfunction, each dome camera has a unique address (ID). The default setting is 0[ID001]

Dome Camera ID Setting (Rotary Switch, SW301, SW302)

X16	X1
SW301	SW302

The value of rotary switches is in hexadecimal. For example, if SW301 = A and SW302 = F then the ID = 175(AF).

2.5.2 Setting the protocol of dome camera

Dome Camera Protocol Setting (Dip Switch, SW303)

No1	No2	Protocol
Off	Off	Pelco-D/Pelco-P

Dome Camera Baud Rate Setting (Dip Switch, SW303)

No3	No4	Baud Rate(bps)
Off	Off	2400
Off	On	4800
On	Off	9600
On	On	38400

Dome Camera Termination Setting Off/On (NO5, Dip Switch, SW303)

3. Program and Operation

[OSD Menu Structure]

- Main Menu/Editing Title

```
MAIN MENU

SYSTEM SETUP
DISPLAY SETUP
CAMERA SETUP
DOME MOTION
PRESET SETUP
PATTERN SETUP
TOUR SETUP
SCAN SETUP
ALARM SETUP
EXIT
```

```
TITLE

ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789/+-=:?!#.,"~()

SELECT: (MOVE)
SET/CLEAR: (TELE/WIDE)
SAVE: (NEAR)
EXIT: (FAR)
```

- Operation Menus

```
SYSTEM SETUP

INFO
REBOOT
INITIALZE
PASSWORD
EXIT
```

```
SYSTEM INFORMATION

X23(X30) MINI SPEED DOME
V x.xx.xx
RS485/2400
ID001
NTSC

-EXIT: (FAR)
```

```
REBOOT

CONTINUE?
YES         : NEAR
NO          : FAR
```

```
INITIALIZE

ALL         :NO CLR
CAM         :NO CLR
PRESET      :NO CLR
TOUR        :NO CLR
PATTERN     :NO CLR
SCAN        :NO CLR
ETC         :NO CLR

SAVE : OPEN
BACK : CLOSE
```

```
PASSWORD

CURRENT  : ...
ENABLE   :DISABLE
NEW      : ....
CONFIRM  : ....

0123456789
-SET/CLEAR:TELE/WIDE
-EXIT       :(FAR)
```

```
DISPLAY SETUP
OSD SETUP
PRIVACY ZONE
IMAGE SETUP
MD/FD
LANGUAGE: ENGLISH
EXIT
```

```
OSD SETUP

LABEL POSITION : 0FF
DTIME        : ON
ZOOM         : OFF
ID           : ON
MODE         : ON
ANGLE        : 3SEC

SAVE : OPEN
BACK : CLOSE
- CHANGE : (LEFT/RIGHT)
- TO SETUP: (TELE)
```

```
PRIVACY ZONE SETUP

PRIVACY.00:NOT USED
EDIT:
DISPLAY:
WIDTH:
HEIGHT:
CLEAR

SAVE : OPEN
BACK : CLOSE
-CHANGE:(LEFT/LIGHT)
```

```
IMAGE SETUP

MIRROR : NORMAL

SAVE : OPEN
BACK : CLOSE
```

```
MOTION DETECTION

MD : OFF
SENSITIVITY :
ALARM :
ATIME :

SAVE : OPEN
BACK : CLOSE
```

```
- TITLE       - MODE -
            - DTIME -
- ERROR MSG
- EXIT : FAR
            - ID -
ZOOM       - ANGLE -
```

```
PRIVACY ZONE SETUP

PRESS MOVE KEY
SAVE : NEAR
EXIT : FAR
```

3. Program and Operation

```
CAMERA SETUP

FOCUS/ZOOM
W-BALANCE
EXPOSURE
DAY/NIGHT
ADVANCED
WDR/DNR
EXIT
```

```
FOCUS/ZOOM SETUP

FOCUS : AUTO
ZOOM SPD : V-FAST
D.ZOOM : OFF
REFRESH MODE : ON
REFRESH TIME:

SAVE : OPEN
BACK : CLOSE
```

```
WB SETUP

MODE : AWB
R GAIN :
B GAIN :

SAVE : OPEN
BACK : CLOSE
```

```
D/N SETUP

DAY/NIGHT : AUTO
D/N DETECT : AUTO
D/N DTIME : 03

SAVE : OPEN
BACK : CLOSE
```

```
WDR/DNR

WDR SETUP : OFF
WDR LEVEL :
DNR SETUP : OFF
DNR : LEVEL

SAVE : OPEN
BACK : CLOSE
```

```
AE SETUP

MODE : FULL AUTO
SHUT :
AGC GAIN :
AGC MAX : HIGH
DSS : OFF
BRIGHT : 06

SAVE : OPEN
BACK : CLOSE
```

```
ADVANCED SETUP

SHARPNESS : 10
BACKLIGHT : OFF

SAVE : OPEN
BACK : CLOSE
```

```
DOME MOTION SETUP

GENERAL SETUP
MOTION SETUP
HOME ACTION
CALIBRATION
EXIT
```

```
GENERAL SETUP

POWER-UP ACT : ON
TURBO SPEED : ON
PRESET SPEED : FAST
PRESET MASK : OFF

SAVE : OPEN
BACK : CLOSE
```

```
MOTION SETUP

PROP PAN/TILT : ON
AUTO FLIP : ON
OVER TILT : MODE 1

SAVE : OPEN
BACK : CLOSE
```

```
HOME ACTION SETUP

ACTION : HOME
NUMBER :
TIME : 010 MIN
MODE : OFF

SAVE : OPEN
BACK : CLOSE
```

```
CALIBRATION SETUP

AUTO CAL : AUTO
ERROR MSG DISP : OFF
CALIBRATION

SAVE : OPEN
BACK : CLOSE
```

```
CONTINUE?
YES : NEAR
NO : FAR
```

3. Program and Operation

PRESET SETUP

NO. 001 : NOT USED
EDIT :
TITLE :
DTIME :
CLEAR

SAVE : OPEN
BACK : CLOSE

PATTERN SETUP

NO.001 : NOT USED
EDIT :
TITLE :
TIME :
CLEAR

SAVE : OPEN
BACK : CLOSE

TOUR SETUP

NO. 001 : NOT USED
··· ··· ··· ··· ··· ··· ···
··· ··· ··· ··· ··· ··· ···
CLEAR
SAVE : OPEN
BACK : CLOSE
· CHANGE ID:(TELE/WIDE)
· CHANGE ACTION:(NEAR)

SCAN SETUP

NO. 001 : NOT USED
EDIT :
TITLE :
SPEED :
DTIME :
DIRECTION
MODE :
CLEAR

SAVE : OPEN
BACK : CLOSE

ALARM SETUP

NO. 001 : NOT USED
IN :
OUT :
PRIORITY :
ACTION :
NUMBER :
ATIME :

SAVE : OPEN
BACK : CLOSE
· SET/CLEAR:(TELE/WIDE)

PRESET SETUP

PRESS MOVE KEY
SAVE : NEAR
EXIT : FAR

PTIME: 022
START POSITION SETUP

PRESS MOVE KEY
START : (NEAR)
SAVE : (NEAR)
EXIT : (FAR)

START POSITION SETUP

PRESS MOVE KEY
SAVE : (NEAR)
EXIT : (FAR)

PTIME: 022
PATTERN SETUP

PRESS MOVE KEY
START : (NEAR)
SAVE : (NEAR)
EXIT : (FAR)

STOP POSITION SETUP

PRESS MOVE KEY
SAVE : (NEAR)
BACK : (FAR)

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3. Program and Operation

3.1 Getting Started

Before installing and operating the dome camera, please read this Instruction Manual carefully.
This dome camera can be operated using two methods:

       - Use hot keys [See Appendix]
       - Use OSD Menu on the monitor

You should install and connect the dome to an interface device before using this operating guide.
See [2. Installation and Connection].
Once installed, apply power to the dome. The start-up screen is displayed on the monitor.

> * **Notice**: **You must save changes in each sub-menu and edit menu. You may need to save settings twice.**
> For example, after you set the position of a preset, you must save the position in the preset edit window and then save changes in the Preset Setup menu again.

> * **Notice**: **To stop an action or alarm, press [ESC] button or [96+Preset]. The dome goes to manual mode or pauses temporarily (about 10sec in Alarm mode)**

These symbols refer to the following joystick actions:
▲/▼: move joystick up and down
◀/▶ : move joystick left and right
▶: move joystick right
↻↺[Tele/Wide]: twist joystick clockwise or counter-clockwise for zooming
 [KEY]: press the defined key.

3.2 Main Menu

3.2.1 Acessing the Main Menu [95] + [Preset]/ [Menu]

When you use Pelco-D and Pelco-P protocol with your controller, you can access the main menu on your monitor by pressing the key [95] + [Preset] or pressing and holding the [Menu] key for 2 seconds.

```
MAIN MENU

  SYSTEM SETUP
  DISPLAY SETUP
  CAMERA SETUP
  DOME MOTION
  PRESET SETUP
  PATTERN SETUP
  TOUR SETUP
  SCAN SETUP
  ALARM SETUP

  EXIT
```
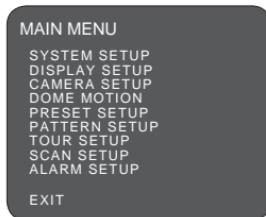
▲/▼: move joystick up and down to select items.
▶/ [Open]/ [Near]: move joystick right or press [Open] or [Near] to select sub-menus.
[Close]/[Far]: Exit Main Menu.

3. Program and Operation

3.2.2 Editing TITLE

```
TITLE

ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789/+-=;?#.,"~0

SELECT : (MOVE)
SET/CLEAR: (TELE/WIDE)

SAVE : (NEAR)
EXIT : (FAR)
```
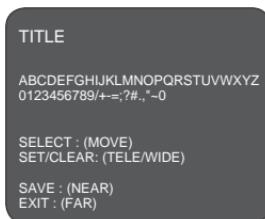
The Title edit menu can be used in the setup titles for Presets, Patterns, Tours, and Scans.
 - Select {Title} in the appropriate menu and move the joystick to the right.
 - Move the joystick right, left, up or down to select a character.
 - Press [Tele] button to input a character and [Wide] button to cancel the character.
 - When the label is completed, use [Near] or use the joystick to save the selected title.
 - If you want to cancel the selected title, return to the previous menu using [Far] button.

3.3 System Setup Menu
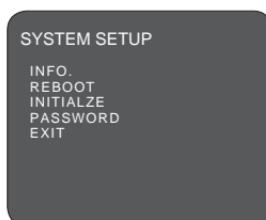
```
SYSTEM SETUP

 INFO.
 REBOOT
 INITIALZE
 PASSWORD
 EXIT
```

▲/▼: move joystick up and down to select items.
◄/► : move joystick left and right to change settings.
►/ [Open]/ [Near]: move joystick right to open sub-menus.
►/ [Close]/ [Far]: move joystick to cancel or to exit current menu (back).

3.3.1 System Information

```
SYSTEM INFORMATIO

X23(X30) MINI SPEED DOME
V x.xx.xx
RS485/2400
ID001
NTSC

-EXIT: (FAR)
```
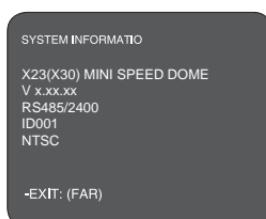
 The system Information displays model name/Version/Protocol/Communication Type/
 Camera ID No./System. This information is for reference only, you cannot change settings through
 the System Information screen. Use the following steps to display the System Information screen.

 - Enter into {Main Menu}.
 - Select {System Setup} using the joystick[►].
 - Select {Info} using the joystick [►].
 - Press [Far] button to return to the System Setup menu.

3. Program and Operation

3.3.2 Reboot

```
REBOOT

 CONTINUE?
 YES : NEAR
 NO : FAR
```
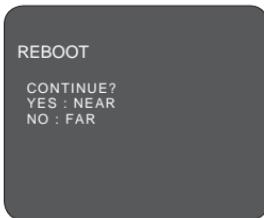
Reboot the system if operation becomes unstable or encounters errors.
Rebooting the system will turn the camera on and off without changing settings.

- Enter into {Main Menu}
- Select {System Setup} then {Reboot} using the joystick.
- To {Reboot} the system, press the [Near] key.
- To cancel, press [Far] key.

3.3.3 Initialize

```
INITIALIZE

 ALL      : NO CLR
 CAM      : NO CLR
 PRESET   : NO CLR
 TOUR     : NO CLR
 PATTERN  : NO CLR
 SCAN     : NO CLR
 ETC      : NO CLR
 SAVE     : OPEN
 BACK     : CLOSE
```
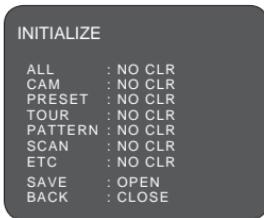
Use initalize to reset settings to factory defaults.

- Enter into {Main Menu}
- Select {System Setup} and select {Initalize} using the joystick [▶].
- Select items to be initialized by highlighting them and then move the joystick right to select {Clear}.
- Press [Open] button to initalize selections and select [Near] to continue. Press [Far] to cancel.

[ALL]: Clear All saved items (CAM/PRESET/TOUR/PATTERN/SCAN)
[CAM]: Clear Camera related settings.
[PRESET]: Clear saved Presets. (To clear individual presets, refer to PRESET Menu)
[TOUR]: Clear saved Tours.
[PATTERN]: Clear saved Patterns.
[SCAN]: Clear saved Scan items.
[ETC]: Clear other setting value except items of Camera & PTZs
        (CAM status and saved data of PRESET, TOUR, PATTERN and SCAN)

3. Program and Operation

3.3.4 Entering a Password

* **Note:** 0000 is the default password.

```
PASSWORD

CURRENT : ...
ENABLE   : DISABLE
NEW      : ...
CONFIRM : ...

0123456789
-SET/CLEAR : (TELE/WIDE)
-EXIT : (FAR)
```
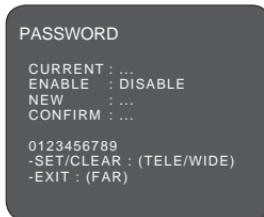
To prevent unauthorized changes to settings, you can enable password protection.
When password protection is enabled, you must enter the password to enter the Main Menu.
Passwords must be 4 characters long.
 - Enter into {Main Menu}
 - Select {System Setup} and select {Password} using the joystick [▶].
 - Enter the current password (default: 0000) by moving the joystick left and right to highlight numbers
   and press [Tele] to enter numbers.
 - Highlight {Enable} and move the joystick left or right to select {Enable} to enable password protection.
   Move the joystick down to enter the new password.
 - Enter the New password by moving the joystick left and right to highlight numbers
   and press [Tele] to enter numbers. Re-enter the New password under Confirm.
 - Press [Far] to exit the menu and save changes.

3.4 Display Setup Menu

```
DISPLAY SETUP

OSD SETUP
PRIVACY ZONE
IMAGE SETUP
MOTION / FACE
LANGUAGE: ENGLISH
EXIT
```

▲/▼: move joystick up and down to select items.
◀/▶: move joystick left and right to change settings.
▶/ [Open]/ [Near]: move joystick right to enter sub-menus.
[Close]/ [Far]: Exit current menu without saving changes.

3.4.1 Language

 - Enter into {Main Menu}
 - Select {Display Setup} and highlight {Lanuage} using the joystick.
 - If you want to use another language, move the joystick left and right to select.
   Available Languages: English/Chinese/Russian/Spanish/German/Italian/French/Dutch.

3. Program and Operation

3.4.2 OSD Setup

```
OSD SETUP

LABEL POSITION : OFF
TIME           : ON
ZOOM           : OFF
ID             : ON
MODE           : ON
ANGLE          : 3SEC
SAVE           : OPEN
BACK           : CLOSE
- CHANGE       : (LEFT/RIGHT)
- TO SETUP     : (TELE)
```

```
- TITLE        - MODE -
               - DTIME -
  ERROR MSG
- EXIT : FAR
               - ID -
ZOOM           - ANGLE -
```
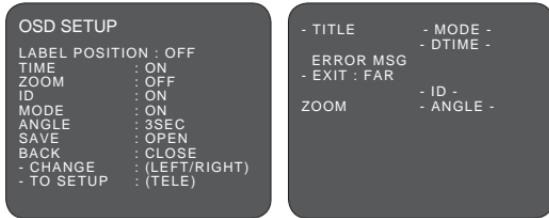
OSD setup allows you to program how labels are displayed on the monitor.
Labels can be configured for Title, Dwell Time, Zoom ratio, Camera ID, Operation Mode
and PTZ Angle. Label position can be adjusted.

- Enter into {Main Menu}
- Select {Display Setup} and select {OSD Setup} using joystick [▶]
- Highlight labels using the joystick to configure:
    - Move the joystick left or right [▶] to enable/disable label display.
    - Press [Tele] button to edit the position of labels. Move the label with the joystick and
       press [Far] to return to the OSD Setup menu.
- Press [Open] button to save changes.
- Press [Close] button to return to the previous menu without saving changes.

3.4.3 Privacy Zone Setup

```
PRIVACY ZONE SETUP

PRIVACY.00              : NOT
USED
EDIT        :
DISPLAY     :
WIDTH       :
HEIGHT      :
CLEAR

SAVE : OPEN
BACK : CLOSE

 CHANGE : (LEFT/LIGHT)
```

```
PRIVACY ZONE SETUP

PRESS MOVE KEY
SAVE : NEAR
EXIT : FAR
```
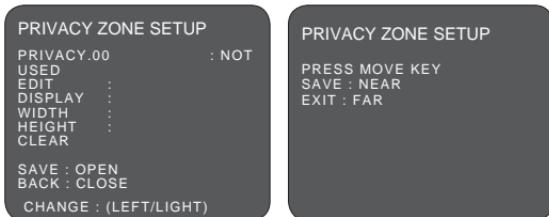
A Privacy Zone allows you to program four-sided zones that cannot be viewed by operators.
Privacy masks can be moved using pan and tilt controls using the joystick and re-sized using the
zoom controls [Tele/Wide]. Privacy masks stay in position when adjusting the camera pan/tilt
and change size when adjusting the zoom ratio. A maximum of 15 privacy mask zone can be
displayed.

It is recommended that you set the size of privacy masks to at least twice the height and width
of the object/area you would like to mask.

 - Enter into {Main Menu}
 - Select {Display Setup} and then {Privacy Zone} using the joystick [▶].
 - Move the joystick left or right to select a privacy mask ID[00~14] to edit.
 - To program a privacy mask, select {Edit}, use the pan/tilt controls to move to a target, and use
   the zoom controls [Tele/Wide] to adjust the mask size. Press [Near] to save the privacy mask.
 - After editing a mask, you can use the {Width} and {Height} controls to adjust the size.
 - Set {Display} to On to display the mask on the screen.
 - Select {Clear} to delete a saved privacy mask.
 - Press [Open] button to save settings.
 - Press [Close] button to return to previous menu without saving.

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3. Program and Operation

3.4.4 Image Setup

```
IMAGE SETUP

MIRROR    : NORMAL

SAVE      : OPEN
BACK      : CLOSE
```
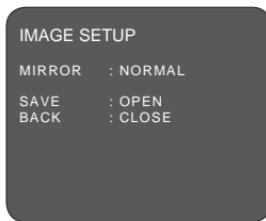
This menu allows you to mirror the image horizontally, vertically, or both.

- Enter into {Main Menu}
- Select {Display Setup} and then select {Image Setup} using the joystick[▶].
- Highlight {Mirror} and select Normal, Horizontal, Vertical, or H/V (Horizontal and Vertical).
- Press [Open] button or use joystick to save settings
- Press [Close] button or use joystick to return to the previous menu without saving changes.

3.4.5 Motion Detection/Face Detection (MD/FD)

```
MD/FD

MD/FD        : OFF
SENSITIVITY            :
ALARM        :
ATIME        :

SAVE         : OPEN
BACK         : CLOSE
```

The camera can monitor the image for movement or faces. When triggered, it sends an alarm using the OSD and/or Alarm Out. The sensitivity of motion/face detection can be adjusted between 0 and 15 (a greater sensitivity value means alarms will be triggered more easily).

> *** Note:** To stop alarms temporarily (about 10sec), press [ESC] button or [96+preset]. Face detection may be triggered by objects that appear similar to human faces.

- Enter into {Main Menu}
- Select {Display Setup} and then {MD/FD} using the joystick.
- Highlight {MD/FD} and select Off, Motion-D, or Face-D to enable motion or face detection.
- Highlight {Alarm} and select OSD to have alarms appear on the OSD, Alarm Out to send an alarm message, or OSD + Al. Out for both an OSD alert and Alarm Out message.
- Highlight {Sensitivity} and select a sensitivity between 0 and 15 (greater sensitivity means alarms are triggered more easily).
- Highlight {ATime} and select the duration of alarms in seconds.
- Press [Open] or use the joystick to save settings.
- Press [Close] or use the joystick to return to the previous menu without saving changes.

3. Program and Operation

3.5 Camera Setup Menu

```
CAMERA SETUP

FOCUS/ZOOM
W-BALANCE
EXPOSURE
DAY/NIGHT
ADVANCE
WDR/DNR
EXIT
```

- ▲/▼ : move joystick up and down to select items.
- ◄/► : move joystick left and right to change settings.
- ► / [Open]/ [Near]: move joystick right to enter sub-menus.
- ► / [Close]/ [Far]: move joystick to cancel or to exit current menu without saving changes.

3.5.1 Focus/Zoom

```
FOCUS/ZOOM SETUP

FOCUS      : AUTO
ZOOM SPD : V-FAST
D.ZOOM    : OFF
REFRESH MODE : ON
REFRESH TIME : 0DAY 12HOUR

SAVE       : OPEN
BACK       : CLOSE
```

Auto Focus allows the lens to remain in focus automatically during zoom and pan/tilt functions. Zoom speed allows the user to define how fast the dome will go from full wide zoom to the maximum optical zoom. There are four modes (Slow, Normal, Fast, and V-Fast).

- Enter into {Main Menu}.
- Select {Camera Setup} and then select {Focus/Zoom} using joystick[►].
- Highlight {Focus} and select the focus mode: Auto, Manual, or Semi-Auto.
- Highlight {Zoom Speed} and select V-Fast, Fast, Normal or Slow.
- Highlight {D.Zoom} and select On/Off to enable/disable digital zoom.
- Highlight {Refresh Mode} and select On/Off to enable/disable Focus Refresh.
- Highlight {Refresh Time} and select the amount of time in between Focus Refreshes.
- Press [Open] button or use joystick to save settings.
- Press [Close] button or use joystick to return to previous menu without saving changes.

3.5.2 WB Setup (White Balance Setup)

```
WB SETUP

MODE      : AWB
R GAIN    :
B GAIN    :
SAVE      : OPEN
BACK      : CLOSE
```

AWB automatically processes the image to retain color balance over a color temperature range.

* Auto Trace White balance (ATW): Aligns the white balance automatically (2,300 to 11,000 K).
* Indoor: 3200 K Base Mode.
* Outdoor: 5400 K Base Mode.
* Onepush WB mode: The white balance is aligned when Onepush is selected from the menu.
* Manual WB mode: Red and Blue gain values can be set by user, 0 ~ 255.
* Auto White Balance mode (AWB): Wide range auto white balance mode. In this mode, the white balance is performed at a faster operating speed than ATW.

- Enter into {Main Menu}
- Select {Camera Setup} and then select {W-Balance} using the joystick [►].
- Highlight {Mode} and select AWB, Indoor, Outdoor, Onepush, ATW, or Manual.
- If you select Manual, highlight {R Gain} and {B Gain} and adjust the blue/red gain as needed.
- Press [Open] button or use joystick to save settings.
- Press [Close] button or use joystick to return to previous menu without saving changes.

3. Program and Operation

3.5.3 AE Setup (Auto Exposure Setup)

```
AE SETUP

MODE        : FULL AUTO
SHUT        :
AGC GAIN    :
AGC MAX     : HIGH
DSS         : OFF
BRIGHT      : 06

SAVE : OPEN
BACK : CLOSE
```
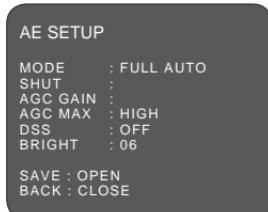
Shutter speed is the duration of the electronic shutter. Set the shutter speed to operate automatically (Full Auto) or manually (Numeric Value).
The AGC (Automatic Gain Control or AGC Max Gain) adjusts the brightness of the picture. The brightness increases as the number gets higher.
When the Shutter Mode is set to Full Auto, DSS can be turned off or on (2x ~ 128x).

- Enter into {Main Menu}.
- Select {Camera Setup} and then select {Exposure} using joystick[▶].
- Highlight {Mode} and select Full Auto, Manual, or Shutter PRI. Adjust the remaining settings as needed. See the table below for details on which settings can be adjusted in each mode and the default values for each.
- Press [Open] button or use joystick to save settings.
- Press [Close] button or use joystick to return to the previous menu without saving changes.

AE Mode	Full Auto	Manual	SHUT FIX	WDR
Shutter (1/1~1/100,000)	X	O (1/1000)	O (1/1000)	X
AGC Gain (00~36dB)	X	O (06dB)	X	X
AGC Max (Off/Low/Mid/High/Super)	O (default: High)	X	O (High)	O
DSS (0x2~0x128Fld)	O (Off)	X	X	X
Bright (00~15)	O (06)	X	O (06)	O

Avaliable Options for each Auto Exposure Mode and Default Values (in Parenthesis)

3.5.4 Day / Night Setup

```
D/N SETUP

DAY/NIGHT : AUTO
D&N DETECT             : AUTO
D/N DTIME : 03

SAVE : OPEN
BACK : CLOSE
```
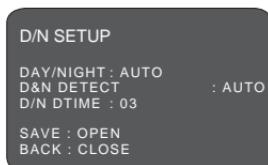
The Day / Night function improves the camera's sensitivity at night or when the brightness level of the ambient environment is low. When Auto is selected, Day / Night filter is automatically engaged/disengaged according to the luminance level.

- Enter into {Main Menu}.
- Select {Camera Setup} and select {Day/Night} using joystick [▶].
- Highlight {Day/Night} and select Auto, Day, or Night.
- Highlight {D&N Detect} and select Auto, Sensor, or Video.
- Highlight {D/N DTime} and select the time it takes for the camera to switch between day and night mode.
- Press [Open] button or use joystick to save settings.
- Press [Close] button or use joystick to return to the previous menu without saving changes.

3. Program and Operation

3.5.5 Advanced Setup

```
ADVANCED SETUP

SHARPNESS              : 10
BACKLIGHT              : OFF


SAVE : OPEN
BACK : CLOSE
```
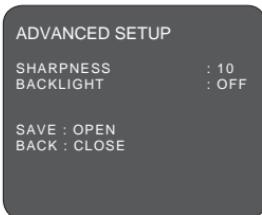
The Backlight Compensation function increases the brightness of the overall screen to compensate for a loss of dark detail when subjects are shot in a backlit environment.
Sharpness enhances picture detail by increasing the aperture gain of the camera and sharpening the edges in the picture.

- Enter into {Main Menu}
- Select {Camera Setup} and then select {Advanced} using the joystick[▶].
- Highlight {Sharpness} and adjust the sharpness level as needed.
- Highlight {Backlight} and select On/Off to enable/disable Backlight Compensation.
- Press [Open] button or use joystick to save settings
- Press [Close] button or use joystick to return to previous menu without saving changes.

3.5.6 WDR/DNR Setup

```
WDR/DNR

WDR SETUP              : OFF
WDR LEVEL             :
DNR SETUP              : OFF
DNR LEVEL:

SAVE : OPEN
BACK : CLOSE
```
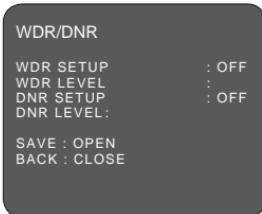
When both high-brightness subjects and low-brightness subjects have been shot at the same time, overexposure in the high-brightness subjects or loss of dark detail in the low-brightness subjects may occur. The WDR (Wide Dynamic Range) function creates images free from over-exposure or loss of dark detail by combining two images after tripping the shutter for a long exposure time and for a short exposure time in one field.

DNR (Digital Noise Reduction) can be set between 0 and 15. When gain level is higher, DNR will reduce the noise to make the image clearer.

- Enter into {Main Menu}.
- Select {Camera Setup} and then select {WDR/DNR} using joystick[▶].
- Highlight {WDR Setup} and select On/Off to enable/disable Wide Dynamic Range.
- Highlight {WDR Level} and adjust as needed.
- Highlight {DNR Setup} and select On/Off to enable/disable Digital Noise Reduction.
- Highlight {DNR Level} and adjust as needed.
- Press [Open] button or use joystick to save settings.
- Press [Close] button or use joystick to return to previous menu without saving changes.

3. Program and Operation

3.6 Dome Motion Menu
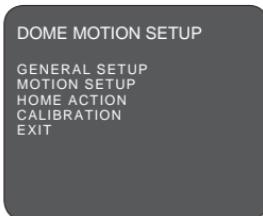
```
DOME MOTION SETUP

GENERAL SETUP
MOTION SETUP
HOME ACTION
CALIBRATION
EXIT
```

▲/▼: move joystick up and down to select items.
◀/▶: move joystick left and right to change settings.
▶/ [Open]/ [Near]: move joystick right to enter sub-menus.
▶/ [Close]/ [Far]: move joystick to cancel or to exit current menu without saving changes.

3.6.1 General Setup

```
GENERAL SETUP

POWER-UP ACT.    : ON
TURBO SPEED      : ON
PRESET SPEED     : FAST
PRESET MASK      : OFF

SAVE : OPEN
BACK : CLOSE
```
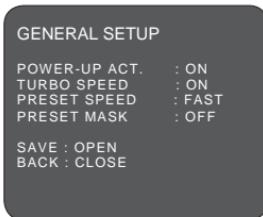
This menu controls general motion settings.

Power-up Action (Power-up Act.) is a function (preset, tour, pattern and scan) performed when the power is re-cycled or after alarm action. The following settings are available. Set the dome 'On' to resume its prior activity.
- Use the joystick [▶] to select On/Off.

Turbo Speed enables/disables turbo speed for manual pan/tilt operations.
- Use the joystick [▶] to select On/Off.

Preset Speed allows you to select the preset speed.
- Use the joystick [▶] to select {Preset Speed} and select Fast, Normal, or Slow.

When Preset Mask is on, the camera will show a gray screen while moving between presets. When each preset is reached, the camera shows the image for the duration of the dwell time.
- Use the joystick [▶] to select {Preset Mask} and select On or Off.

- Press [Open] button or use joystick to save settings
- Press [Close] button or use joystick to return to the previous menu without saving changes.

3. Program and Operation

3.6.2 Motion Setup

```
MOTION SETUP

PROP. PAN/TILT      : ON
AUTO FILP           : ON
OVER TILT           : MODE 1

SAVE : OPEN
BACK : CLOSE
```
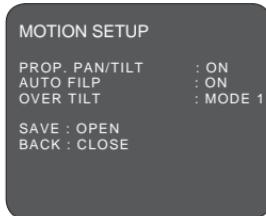
Proportional Pan/Tilt (Prop. Pan/Tilt) adjusts the manual pan/tilt speed according to the zoom level.
- Highlight {Prop. Pan/Tilt} and use the joystick to select On/Off.

Auto-Flip automatically reverses the image when the camera passes the top of the tilt arc
(90 degrees). This allows the camera to see objects with the correct orientation after tilting
more than 90 degrees.

 - Highlight {Auto Flip} and use the joystick to select On/Off.

Over-Tilt restricts the vertical view angle to prevent the image being cut off by the dome housing.
 - Highlight {Over Tilt} and use the joystick to select Mode 0 / Mode 1 / Mode 2.

- Press [Open] button or use the joystick to save settings.
- Press [Close] button or use the joystick to return to the previous menu without saving changes.

3.6.3 Home Action Setup

```
HOME ACTION SETUP

ACTION    : HOME
NUMBER    :
TIME      : 010 MIN
MODE      : OFF

SAVE : OPEN
BACK : CLOSE
```
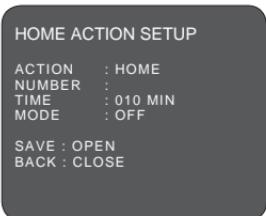
Home Action allows you to set a default action (e.g. Preset, Tour, or Auto Scan) that the camera
will perform after the joystick control has been idle for a predetermined amount of time.
The idle time can be set from 1 minute to 60 minutes.

> *** Note**: In order to call an action (Preset, Pattern, Tour or Scan), you must save Preset, Pattern, Tour,
> or Scan first.

- Enter into {Main Menu}.
- Select {Dome Motion} and then {Home Action} using the joystick[▶].
- Highlight {Action} and selct Home, Preset, Scan, or Tour. If Home is selected, the camera will
  return to the default home position (Pan 0˚ / Tilt 8˚) after the idle time.
- Highlight {Number} and select the desired Preset, Scan, or Tour.
- Highlight {Time} and select the idle time.
- Highlight {Mode} and select On/Off to enable/disable Home Action.
- Press [Open] button or use the joystick to save settings.
- Press [Close] button or use the joystick to return to the previous menu without saving changes.

3. Program and Operation

3.6.4 Calibration Setup

```
CALIBRATION SETUP

AUTO CAL  : AUTO
ERROR MSG DISP : OFF
CALIBRATION

SAVE : OPEN
BACK : CLOSE
```

```
CONTINUE?

YES : NEAR
NO : FAR
```
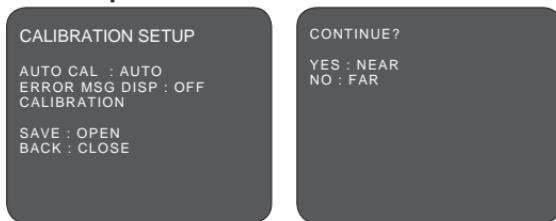
Calibration allows you to correct Pan/Tilt control errors.

- Enter into {Main Menu}.
- Select {Dome Motion} and then select {Calibration} using the joystick [▶].
- Highlight {Auto Cal} and select Auto for Auto Calibration or Manual for Manual Calibration.
  When Auto Calibration is selected the camera will automatically calibrate when errors are detected.

When Manual Calibration is selected, you must manually initiate the calibration process. To manually calibrate the camera, select {Calibration} using the joystick [▶] and press [Near] to confirm.

- Highlight {Error Msg Disp} and select On/Off to enable/disable OSD messages when errors are detected.
- Press [Open] button or use the joystick to save settings.
- Press [Close] button or use the joystick to return to the previous menu without saving changes.

3.7 Preset Setup
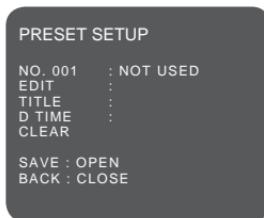
```
PRESET SETUP

NO. 001    : NOT USED
EDIT       :
TITLE      :
D TIME     :
CLEAR

SAVE : OPEN
BACK : CLOSE
```

▲/▼: move joystick up and down to select items.
◀/▶: move joystick left and right to change settings.
▶/ [Open]/ [Near]: move joystick right to enter sub-menus.
▶/ [Close]/ [Far]: move joystick to cancel or to return to previous menu without saving changes.

The camera can have up to 210 preset positions. Preset positions include Pan/Tilt/Zoom setting.

3. Program and Operation

3.7.1 Saving Presets

```
PRESET SETUP

NO. 001    : NOT USED
EDIT       :
TITLE      :
D TIME     :
CLEAR

SAVE : OPEN
BACK : CLOSE
```

```
PRESET SETUP

PRESS MOVE KEY

SAVE : NEAR
BACK : FAR
```

- Enter into {Main Menu}
- Select {Preset Setup} using the joystick [▶].
- Highlight {No.} and move the joystick left and right to select the preset you would like to edit.
- Select {Edit} to edit the preset. Use the joystick to move the camera into the desired position
  and press [Near] to save.
- Select {Title} to create a Preset Title (Optional). See [3.2.2 Editing Title] for details.
- Highlight {DTime} and just the joystick to set the dwell time for the preset.
- Press [Open] button or use the joystick to save settings.
- Press [Close] button or use the joystick to return to the previous menu without saving changes.

Note: Select {Clear} to clear the selected Preset.

3.8 Pattern Setup
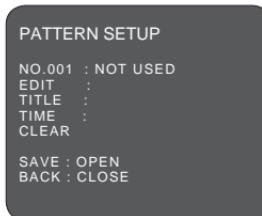
```
PATTERN SETUP

NO.001  : NOT USED
EDIT    :
TITLE   :
TIME    :
CLEAR

SAVE : OPEN
BACK : CLOSE
```

▲/▼: move joystick up and down to select items.
◀/▶: move joystick left and right to change settings.
▶/ [Open]/ [Near]: move joystick right to enter sub-menus.
▶/ [Close]/ [Far]: move joystick to cancel or to exit current menu (Back).

A Pattern allows you to save a series of Pan/Tilt/Zoom movements. The camera can save
up to 8 patterns.

3. Program and Operation

Use the following steps to program a Pattern.

```
PATTERN SETUP

NO.001 : NOT USED
EDIT   :
TITLE  :
TIME   :
CLEAR

SAVE : OPEN
BACK : CLOSE
```

```
                        PTIME: 022
START POSITION SETUP
PATTERN SETUP

PRESS MOVE KEY
START : (NEAR)
SAVE : (NEAR)
EXIT : (FAR)
```
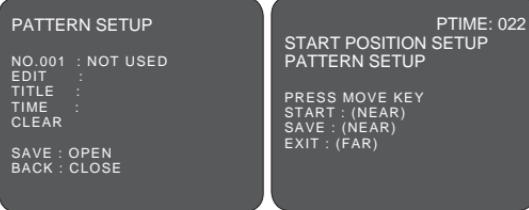
- Enter into {Main Menu}.
- Select {Pattern Setup} using the joystick [▶].
- Highlight {No.} and select the number of the pattern you would like to edit.
- Select {Edit} to edit the pattern. Use the joystick to move to the desired start position and press [Near] to start programming the pattern. Move the joystick to program the pattern and press [Near] when finished to save the pattern.
- Select {Title} to create a Pattern Title (Optional). See [3.2.2 Editing Title] for details.
- Press [Open] or use the joystick to save settings.
- Press [Close] or use the joystick to return to the previous menu without saving changes.

Note: Select {Clear} to clear the selected Pattern. Time refers to the duration of the pattern. Patterns cannot be longer than 60 seconds.

3.9 Tour Setup
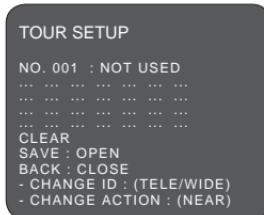
```
TOUR SETUP

NO. 001  : NOT USED
...  ...  ...  ...  ...  ...  ...
...  ...  ...  ...  ...  ...  ...
...  ...  ...  ...  ...  ...  ...
...  ...  ...  ...  ...  ...  ...
CLEAR
SAVE : OPEN
BACK : CLOSE
- CHANGE ID : (TELE/WIDE)
- CHANGE ACTION : (NEAR)
```

▲/▼: move joystick up and down to select items.
◀/▶: move joystick left and right to change settings.
▶/ [Open]/ [Near]: move joystick right to enter sub-menus.
▶/ [Close]/ [Far]: move joystick to return to previous menu without saving changes.

The camera can save up to 8 tours, with up to 28 items (Preset, Pattern, or Scan) each.

* Notice: In order to call an action (Preset, Pattern or Scan), you must save the action first.

- Enter into {Main Menu}.
- Select {Tour Setup} using the joystick [▶].
- Highlight {No.} and select the number of the tour you would like to edit.
- Move the joystick to select items in the tour. Select saved actions by pressing [Tele/Wide]. Change the action type by pressing [Near].
- Press [Open] or use the joystick to save settings.
- Press [Close] or use the joystick to return to the previous menu without saving changes.

**Note:** Select {Clear} to clear the selected Tour.

3. Program and Operation

3.10 Auto Scan Setup
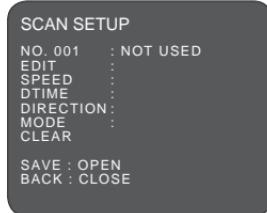
```
SCAN SETUP

NO. 001    : NOT USED
EDIT       :
SPEED      :
DTIME      :
DIRECTION  :
MODE       :
CLEAR

SAVE : OPEN
BACK : CLOSE
```

▲/▼: move joystick up and down to select items.
◄/►: move joystick left and right to change settings.
►/ [Open]/ [Near]: move joystick right to open sub-menus.
►/ [Close]/ [Far]: move joystick to cancel or return to previous menu without saving changes.

An Auto Scan is a PTZ function that can be moves the camera from one position to another position. The camera can save a maximum of 8 Auto Scans. Scan Speed can be adjusted from 1 ~ 35 degrees per second. Use the following steps to create an Auto Scan.

```
START POSITION SETUP

PRESS MOVE KEY

SAVE : (NEAR)
BACK : (FAR)
```

```
STOP POSITION SETUP

PRESS MOVE KEY

SAVE : (NEAR)
BACK : (FAR)
```
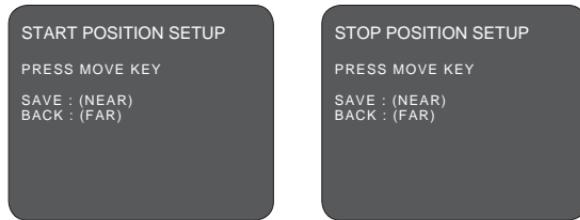
- Enter into {Main Menu}.
- Select {Scan Setup} using the joystick [►].
- Highlight {No.} and select the number of the scan you would like to edit.
- Move the joystick to select the desired start position and press [Near] to save. Move the joystick to the desired stop position and press [Near] to save.

**Note:** Mode represents one of the following:
    - Coming/Going: Camera moves between start and stop position. Start and stop position must be different.
    - Endless: Camera scans in a circular pattern. Start and stop position must be identical. Use the {Direct} setting to set the scan direction as CW (Clockwise) or CCW (Counterclockwise).

- Highlight {Speed} and select the scan speed in degrees per second.
- Highlight {DTime} and select the scan dwell time.
- Press [Open] or use the joystick to save settings.
- Press [Close] or use the joystick to return to the previous menu without saving changes.

3. Program and Operation

3.11 Alarm Setup

The Alarm Setup menu allows you to configure alarm inputs and outputs.
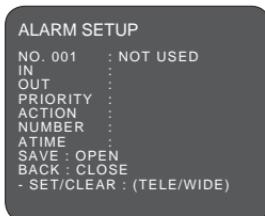
```
ALARM SETUP

NO. 001    : NOT USED
IN         :
OUT        :
PRIORITY   :
ACTION     :
NUMBER     :
ATIME      :
SAVE : OPEN
BACK : CLOSE
- SET/CLEAR : (TELE/WIDE)
```

▲/▼: move joystick up and down to select items.
◄/►: move joystick left and right to change settings.
►/ [Open]/ [Near]: move joystick right to ener sub-menus.
►/ [Close]/ [Far]: move joystick to return to previous menu without saving changes.

- Enter into {Main Menu}.
- Select {Alarm Setup} using the joystick [►].
- Highlight {No.} and select the number of the alarm you would like to configure.
- Highlight {In} and select the alarm input type: N.O. (Normally Open) or N.C. (Normally Closed).
- Highlight {Out} and select the alarm output: On/Off.
- Highlight {Priority} and set the alarm priority between 1 and 4.
- Highlight {Action} and select the type of action that the alarm will trigger: Off, Preset
  Pattern, Scan, or Tour.
- Highlight {Number} and select the number of the action the alarm will trigger.
- Highlight {ATime} and select the Action (dwell) time:
  Time Out (3~60 sec): This is activated during a selected dwell time when an alarm is triggered.
  Momentary (On): When alarm is triggered, the camera will maintain alarm activation until
  it is stopped manually ([ESC] button or [96+preset]).
- Press [Open] or use joystick to save settings.
- Press [Close] or use joystick to return to previous menu without saving settings.

---

* **Note**: **In order to call an action (Preset, Pattern, Tour or Scan), you must save the action first.**
To pause alarms (about 10sec) temporarily, press [ESC] button or [96+preset]

4. Troubleshooting Guide

If problems occur, please consult the following steps before contacting Digimerge Technical Support.

| Problem	Solution
No video on the screen	- Verify that power is connected to all components in the system - Verify that the power switches are ON - Verify the status and connection of cables - Verify that the camera is receiving suffcient power
Poor video quality.	- Check the power supply voltage (24VAC required) - Check camera settings - If the lens or the dome is dirty, clean the dome cover with a clean cloth. Do not use harsh or abrasive cleaners
Dome camera is not working properly (including wrong position of dome camera)	- Re-cycle the power supply re-connecting the power cable. Or reset the camera using the menu [Main>System>Reboot] - Initialize the dome camera. [Main>System>Initialize] - Verify the status and connection of cables
The communication between controller and cameras is not working properly (via 485 cable lines)	- Check that RS-485 communication cable is connected correctly. See {2.4 Connection Interface and Wiring Cables} - Check ID/Protocol/Baud rate/Termination Setting See {2.5 Setting Dome Camera} - See {1.3 Termination Settings}
The surface of the dome case is hot	- Check the voltage level of the dome camera - Verify the status and connection of cables - Check that the dome camera is connected to the proper power source
The image on the screen flickers.	- Ensure that the camera is not directly pointed at a light source, such as the sun or a lamp
The Zoom lens is calibrated without user input.	- The Zoom lens on Camera returns to the original position automatically after 12 hours. This prevents errors by unexpected shock.

5. Specifications (DPZ36WO23)

Image Device	1/4" Sony Double Scan, Super HAD CCD II
Effective Pixels	NTSC: 976(H)*494(V)
Resolution	600 TVL
Lens	23X Optical /10X Digital Zoom(Auto Focus)
View Angle Approx.	Approx.58.1° (Wide end) to 2.8° (Tele end)
Min. illumination	0.2 Lux/ F1.6, 0.001 Lux/DSS, 0.1 Lux/ICR
S/N Ratio	More than 52dB
WDR	On/Off
DNR	3DNR
Privacy Masking	Max. 15 zones
Electrical	
Power Supply	AC24V (±10%) Normal, Built-in Power Line Surge
Power Requirement	Adapter AC24VAC, 2.5A
Power Consumption	AC24VAC, 850mA / 20W (without Heater) AC24VAC, 2A / 45W (with Heater)
Alarm Output	1 Normal Relays 12VDC/500mA Max (Selectable NC/NO)
Alarm Input	4 Normal Dry Contact (Selectable NC/NO)
Control	RS-485 baud rate: 2400~38.4Kbps (default: 2400bps)
Access Time	0.75 second maximum preset recall time
ID (Camera Address)	Physical 255
Mechanical	
Weight	3.4 lbs / 1.5kg
Dimension	Ø154 x 138(H)mm(Bubble Dome Ø110)
Pan Angle	360° Continuous rotation
Speed	Maximum Preset Speed: 360°/sec
Flip	Rotate 180° at bottom of tilt
Auto Scan	8 Auto Scan include vector scan
Preset Position	210 Position with camera status
Tour	8 Tour(Preset, Pattern, Scan)
Pattern	8 Pattern
On Screen Display	Display camera ID, Title, Mode, and Angle on screen (Multi-Language)
Multi-language OSD	English, Chinese, Russian, Spanish, German, Italian, French, Dutch
Environment	
Operating Temperature	14 ~ 122°F / -10~ 50°C
	Heater On: -40 ~ 122°F / -40°C ~ 50°C
Heater(Built-in)	On/Off: 32 ~ 50°F / 0~10°C
Operating Humidity	~80% RH
Storage Temperature	-20°C~60°C/~90%
IP Rating	IP66 (Weatherproof)

5. Specifications (DPZ36WO30)

Image Device	1/4" Sony Double Scan, Super HAD CCD II
Effective Pixels	NTSC: 976(H)*494(V)
Resolution	700 TVL
Lens	30X Optical /10X Digital Zoom(Auto Focus)
View Angle Approx.	Approx. 69.5° (Wide end) to 2.46° (Tele end)
Min. illumination	0.2 Lux/ F1.65, 0.001 Lux/DSS, 0.1 Lux/ICR
S/N Ratio	More than 50dB
WDR	On/Off
DNR	3DNR
Privacy Masking	Max. 15 zones
Electrical	
Power Supply	AC24V (±10%) Normal, Built-in Power Line Surge
Power Requirement	Adapter AC24VAC, 2.5A
Power Consumption	AC24VAC, 850mA / 15W (without Heater) AC24VAC, 2A / 43W (with Heater)
Alarm Output	1 Normal Relays 12VDC/500mA Max (Selectable NC/NO)
Alarm Input	4 Normal Dry Contact (Selectable NC/NO)
Control	RS-485 baud rate: 2400~38.4Kbps (default: 2400bps)
Access Time	0.75 second maximum preset recall time
ID (Camera Address)	Physical 255
Mechanical	
Weight	3.4 lbs / 1.5kg
Dimension	Ø154 x 138(H)mm(Bubble Dome Ø112)
Pan Angle	360° Continuous rotation
Tilt Range	0 ~ 180°
Speed	Maximum Preset Speed: 360°/sec
Flip	Rotate 180° at bottom of tilt
Auto Scan	8 Auto Scan include vector scan
Preset Position	210 Position with camera status
Tour	8 Tour(Preset, Pattern, Scan)
Pattern	8 Pattern
On Screen Display	Display camera ID, Title, Mode, and Angle on screen (Multi-Language)
Multi-language OSD	English, Chinese, Russian, Spanish, German, Italian, French, Dutch
Environment	
Operating Temperature	14 ~ 122°F / -10 ~ 50°C
	Heater On: -40 ~ 122°F / -40 ~ 50°C
Heater(Built-in)	On/Off: 23 ~ 41°F / -5 ~ +5°C
Operating Humidity	~80% RH
Storage Temperature	-20°C~60°C/~90%
IP Rating	IP66 (Weatherproof)

6. Dimensions

[Unit: mm]

Ø112

138

79

26

Ø151.3

Ø154

4-Ø4.8

85.6

85.6
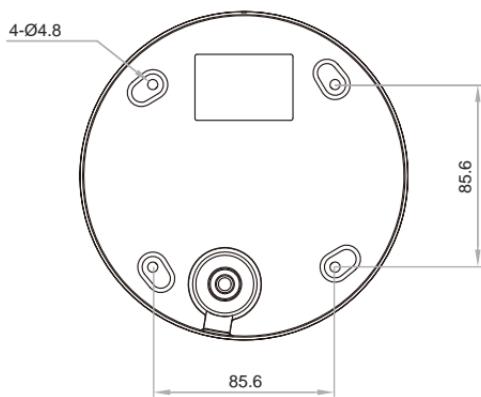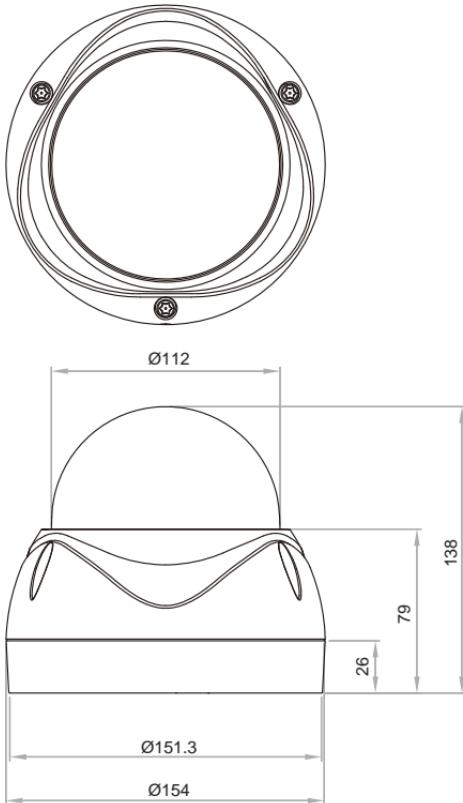
APPENDIX. Pelco Protocol Function List

LCD DISPLAY

Function Keys
> F1(PSET), F2(TOUR), F3(PATT), F4(SCAN)

ESC/POWER

Joystick

Number

Controller
Function Keys

Camera Focus control
> NER / FAR, TELE / WIDE
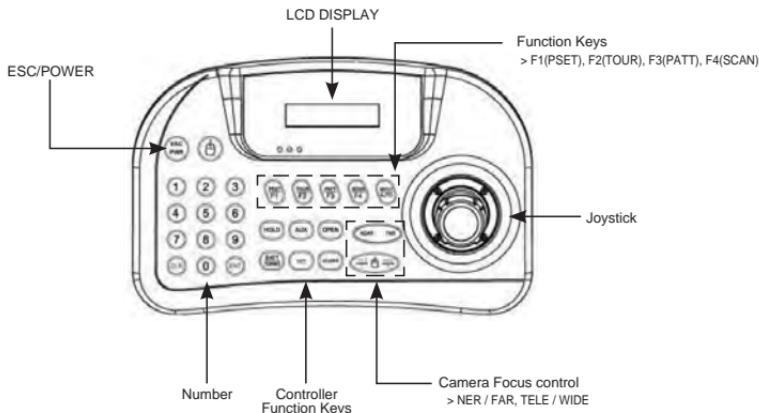
Based on WTX1200A

Function	Key	Preset No.	Operation	e.g. 1	e.g. 2
Preset	Preset	1~59, 101~253	No.+Preset	1+Preset	-
Preset shortcut saving	* Preset	1~59, 101~253	*	*	-
Run PAN	Preset	33	No.+Preset	33+Preset	-
Run PAN ZERO	Preset	34	No.+Preset	34+Preset	-
Scan Setup	Preset	60	No.+Preset	60+Preset	-
Scan	Preset / Scan	61~68	No.+Preset	61+Preset	1+Scan
Tour Setup	Preset	70	No.+Preset	70+Preset	-
Tour	Preset / Tour	71~78	No.+Preset	71+Preset	1+Tour
Pattern Setup	Preset	80	No.+Preset	80+Preset	-
Pattern	Preset / Pattern	81~88	No.+Preset	81+Preset	1+Pattern
MENU Key	Preset / **Menu	95	No.+Preset	95+Preset	**Menu
ESC Key	Preset	96	No.+Preset	96+Preset	-
D. Zoom (Toggle)	Preset	97	No.+Preset	97+Preset	-

* Note:
- To save position of the dome, Press desired number of preset and hold [PRESET] key for 2 seconds.
- To go to OSD Main Menu, Press and hold [MENU] key for 2 seconds.

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DPZ36WO23 / DPZ36WO30

English Version 1.0

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